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Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte MIKE W. CHIANG

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Appeal No. 97-0642
Application 08/242,318[1]

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ON BRIEF

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Before HAIRSTON, BARRETT, and RUGGIERO, Administrative Patent Judges.

BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

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[1] Application for patent filed May 13, 1994, entitled "Text Conversion Method For Computer Systems."

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Appeal No. 97-0642
Application 08/242,318

This is a decision on appeal under 35 U.S.C. § 134 from
the final rejection of claims 1-37.

We affirm-in-part.

BACKGROUND

The disclosed invention is directed to conversion of text
from one "text domain" to another "text domain" using a
"conversion gesture" in a stylus-based computer system.

Claim 1 is reproduced below.

1.   A method of converting characters from one text
domain to another text domain in a stylus-based computer
in which information may be entered by interaction of a
stylus with a display screen, the method comprising the
following steps:

(a) identifying text that has been selected on the
display screen;

(b) determining whether the stylus has been used to
enter a conversion gesture for converting the selected
text on the display screen from a source text domain to a
destination text domain;

(c) determining the source text domain of the
selected text;

(d) determining an appropriate destination text
domain to which the selected text is to be converted; and

(e) replacing at least a portion of the selected
text on the display screen with text from the destination
text domain determined in step d.

The Examiner relies on the following prior art:

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Horodeck	4,544,276	October 1, 1985
Kato et al. (Kato)	5,168,533	December 1, 1992
Sklarew	5,365,598	November 15, 1994
		(filed June 19, 1992)
Capps et al. (Capps)	5,367,453	November 22, 1994
		(filed August 2, 1993)

Claims 11-20 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as his invention.

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sklarew and Kato.

Claims 8-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sklarew and Kato, further in view of Capps.

Claims 21-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Capps and Kato.

Claims 24-37 [sic, 24-27[2]] stand rejected under 35 U.S.C.

§ 103(a) as being unpatentable over Sklarew, Horodeck, and

Kato.

Claims 28-37 stand rejected under 35 U.S.C. § 103(a) as

being unpatentable over Sklarew, Horodeck, and Kato, further

in view of Capps.[3]

We refer to the Final Rejection (Paper No. 8) (pages

referred to as "FR__") and the Examiner's Answer (Paper

No. 15) (pages referred to as "EA__") for a statement of the

Examiner's position and to the Substitute Appeal Brief (Paper

No. 14) (pages referred to as "Br__") for Appellant's

arguments thereagainst.

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[2] We assume for this appeal that the rejection should be
claims 24-27 because only claims 24-27 are discussed in the
statement of the rejection in the Final Rejection and the
Examiner's Answer and because Capps is additionally relied on
for the rejection of claims 28-37.

[3] This ground of rejection at pages 28-37 of the Final
Rejection, is not mentioned or addressed in Appellant's Brief.
Nevertheless, we have considered the rejection on the merits.

OPINION

35 U.S.C. § 112, second paragraph

The Examiner considers the phrase "text extension" to be vague and indefinite "because it is unclear how text is considered extended when the claim language indicates conversion" (FR2). Appellant argues that "extensions" are defined in the art as "small files that temporarily become part of the system software" and "[a]s noted in the specification, the text extension system manages multiple 'extensions' each of which 'acts as a filter which controls the conversion of text from one text domain to another'" (Br7). In any case, Appellant argues, an applicant is entitled to be his own lexicographer.

We agree with Appellant. The phrase "text extension" does not imply text is "extended" in some way as the Examiner states. The term "text extension system" is consistent with the description in the specification at page 17 as controlling the conversion of text from one text domain to another. The claims are not indefinite. The rejection of claims 11-20 is reversed.

35 U.S.C. § 103(a)

Level of ordinary skill

The references are evidence of the knowledge and level of ordinary skill in the art. See In re Oelrich, 579 F.2d 86, 91, 198 USPQ 210, 214 (CCPA 1978) ("the PTO usually must evaluate both the scope and content of the prior art and the level of ordinary skill solely on the cold words of the literature"); In re GPAC Inc., 57 F.3d 1573, 1579, 35 USPQ2d 1116, 1121 (Fed. Cir. 1995) (the Board did not err in adopting the approach that the level of skill in the art was best determined by the references of record). In addition, those of ordinary skill in the art must be presumed to know something about the art apart from what the references expressly disclose. In re Jacoby, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962).

Grouping of claims

Inasmuch as the Examiner's statement of the rejection appears to err in including claims 28-37 in the rejection over Sklarew, Horodeck, and Kato (Appellant's Issue E), and since Appellant does not mention the rejection of claims 28-37 over Sklarew, Horodeck, Kato, and Capps (which would be Issue F),

we summarize the grouping of claims as follows using

Appellant's issue letters from the Brief:

Issue B. In the rejection of claims 1-7 over Sklarew and

Kato, claims 1-6 stand or fall together and claim 7 stands or

falls separately.

Issue C. In the rejection of claims 8-20 over Sklarew,

Kato, and Capps, claim 10 stands or falls with independent

claim 1 because it has not been separately argued; claims 8,

9, and 16-18 stand or fall as one group; and claims 10-15, 19,

and 20 stand or fall together as another group.

Issue D. In the rejection of claims 21-23 over Capps and

Kato, claims 21-23 stand or fall together.

Issue E. In the rejection of claims 24-37, which we

treat as a rejection of claims 24-27, over Sklarew, Horodeck,

and Kato, claims 24-26 stand or fall together and claim 27

stands or falls separately.

[Issue F.] In the rejection of claims 28-37 over Sklarew,

Horodeck, Kato, and Capps, claim 30 stands or falls with

independent claim 24 because it has not been separately

argued; claims 28 and 29 stand or fall as one group; and

claims 31-37 stand or fall together as another group.

Issue B: Claims 1-7

Claims 1-6

Initially, we must interpret what is meant by "text

domain" with a view to determining whether Sklarew's

handwritten characters can be a "source text domain" and

Sklarew's computer text font symbols can be a "destination

text domain."

The specification defines "text domain" in one place as

follows (specification, page 4, lines 5-7): "The 'text

domain' referred to herein may be a particular 'character set'

such as the Greek or Roman alphabets, or the Kanji

characters." The specification also states (specification,

page 13, lines 21-26):

> As used herein, the phrase "text domain" refers to a
> group of textual elements associated with a single
> language. The textual elements may be character sets or
> word lists used in a language. A word list may be
> provided as a dictionary or collection of dictionaries of
> words belonging to a particular language. A character
> set is a collection of characters that are used together
> in a language, as in the example of an alphabet.

These definitions do not require the language or alphabet

associated with the source group of textual elements be

different from the language or alphabet associated with the

destination group of textual elements; that is, there may be

many text domains that map to the same language. While an

alphabet is given as an example of a character set, a

character set is not limited to an alphabet. Handwritten

characters form a "character set[] . . . used in a language"

and computer text font symbols form a different "character

set[] . . . used in a language." Therefore, in our opinion,

the claim limitation of converting "from a source text domain

to a destination text domain" includes converting from a

handwritten character set "source text domain" to a computer

text font symbol character set "destination text domain."

Appellant is capable of expressing that the source and

destination text domains "specify words in different

alphabets," as recited in claims 24 and 31, and could

expressly recite that the source and destination text domains

correspond to textual elements, words or character sets, in

different languages if that interpretation is meant. See

In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed.

Cir. 1989) (claims are given their broadest reasonable

interpretation during examination: "The reason is simply that

during patent prosecution when claims can be amended,

ambiguities should be recognized, scope and breadth of

language explored, and clarification imposed.").

Sklarew discloses a stylus-based computer which

recognizes "handwritten symbols" (defined at col. 4,

lines 15-25) and converts them to computer recognized "font

symbols" (defined at col. 4, lines 26-35) and, if desired,

executes "editing functions" (defined at col. 4, lines 44-48)

pursuant to "editing symbols" (defined at col. 4,

lines 36-43). The computer stores a suitable array of font

symbols for conversion of the handwritten symbols and

different sets of font symbols for different languages and

symbologies may be created and stored in memory (col. 11,

lines 37-51). So-called "softkeys" on the display can be

actuated by the stylus to cause a function to be performed

(col. 12, lines 7-20). "All documents can be stored, changed

and communicated in the manner in which these functions are

accomplished on a conventional word processing system with the

difference that these functions are accomplished with

handwritten Editing Symbols on the (optional) screen or by

touching the Softkeys with the stylus." (Col. 10,

lines 47-53.) Of particular importance, figure 12D shows that

the user presses the "MATCH" (misspelled as "HATCH") softkey,
which causes the computer to convert the handwritten input to
the corresponding font symbols as shown in figure 12E
(col. 12, lines 41-63).

Kato relates to a scanning-type full text search method
and system. "More in particular, it relates to a document
search method and apparatus suitable for preventing omission
in search caused by differences in synonyms and notations at
the time of searching using non-controlled key words (called
free words)." (Col. 1, lines 10-15.) Figure 9 shows a
standardizing process in which a plurality of notations are
collected into one, e.g., "a search term written in romaji or
katakana is once converted into a term written in katakana by
a standard notation" (col. 6, lines 7-9) and "[o]n the other
hand, a search term written in alphabets is generalized to
expression in katakana by borrowed word/kana conversion"
(col. 6, lines 12-14). After forming the synonyms, the terms
are subjected to different kinds of conversion, such as
kana/kanji conversion (col. 6, lines 15-23). Appellant does
not dispute that Kato teaches conversion from one text domain

(e.g., katakana) to a different text domain (e.g., kanji)

(Br12). The conversion in Kato is completely automatic.

Sklarew alone appears to meet the limitations of claim 1.

As discussed, handwritten characters are from "one text

domain" (a "source text domain") and the font symbol

characters are from "another text domain" (a "destination text

domain"). The computer in Sklarew identifies text in a window

as being selected, e.g., the window shown in figure 12C.

While it is implied that Sklarew automatically converts

handwriting as it is entered, Sklarew also discloses that

conversion of the handwritten input to the corresponding font

symbol may be initiated by pressing the "MATCH" softkey

(misspelled as "HATCH" in figures 12D and 12E; col. 12,

lines 41-63). Sklarew discloses that editing "functions are

accomplished with handwritten Editing Symbols on the

(optional) screen or by touching the Softkeys with the stylus"

(col. 10, lines 50-53), where the editing symbols are editing

"gestures." This teaching would have suggested to one of

ordinary skill in the art of designing stylus-based interfaces

that other functions, such as the conversion function, could

be initiated by either a handwritten symbol (gesture) or a key

selection. We conclude that it would have been obvious to use

a gesture to initiate the conversion process in Sklarew

instead of a softkey selection. The source text domain in

Sklarew is predetermined to be the set of handwritten symbols

and the destination text domain to which the selected text is

to be converted is the computer text font symbol set. Claim 1

does not require automatic determination of a source text

domain and an appropriate destination text domain from several

choices. The selected handwritten text is converted

(figures 12E and 12F) and replaced on the screen (figure 12G).

Therefore, Sklarew establishes a <u>prima facie</u> case of

obviousness.

The Examiner applies Kato to show kana/kanji text domain

conversion of the type disclosed by Appellant. The Examiner

considers the motivation to combine Sklarew and Kato to be the

fact that both deal with conversions (EA.). We do not

consider this generalization to be sufficient motivation for

one of ordinary skill in the art to apply the handwriting

entry system of Sklarew to a symbology conversion system as

taught by Kato, or, alternatively, to implement the automatic

symbology conversion system used in full text searching in

Kato as a selective conversion system on a pen-based computer
as taught by Sklarew. It appears from our reading of the
rejection that the Examiner has found a pen-based computer and
a kana/kanji conversion system and combined the teachings
based on Appellant's disclosure rather than a teaching in the
prior art. While we do not find the motivation to combine
Kato, we consider Sklarew alone sufficient to establish a
prima facie case of obviousness.

The Examiner states that Appellant's arguments have been
addressed in the statement of the rejection (EA27). However,
the statement of the rejection repeats the rejection from the
Final Rejection (apparently verbatim) and does not
specifically address the arguments. This is not helpful to
Appellant or to this panel in trying to decide the merits of
the rejections.

Appellant argues that "to the extent that Sklarew's
handwriting recognition might be characterized as a
'conversion,' that conversion is not initiated by the user
with any type of gesture" (Br15) because "the handwriting
recognition process is executed automatically without the aid
of a gesture or any other user intervention (see column 10,

line 8)" (Br15). As discussed, <u>supra</u>, Sklarew discloses

initiating conversion by pressing the "MATCH" softkey

(figures 12D and 12E; col. 12, lines 41-63) and discloses that

editing functions can be performed either with a softkey or a

gesture (col. 10, lines 47-53). This would have suggested to

one of ordinary skill in the art of designing interfaces for

pen-based computers that other functions, such as the

conversion function, could be initiated by either a

handwritten symbol (gesture) or a key selection. In our

opinion, it would have been obvious to use a gesture to

initiate the conversion process instead of a softkey selection

in view of the teachings of Sklarew as a whole.

Appellant argues that Sklarew teaches only editing

gestures (Br13). This argument fails to account for what the

editing gestures would have suggested to one of ordinary skill

in the art. In our opinion, one of ordinary skill in the art

had sufficient knowledge and experience to recognize that

stylus gestures could be used to initiate other functions and

commands, such as a conversion function.

Appellant argues that "the Examiner's position seems to

imply that the patent to Sklarew suggests using a pen gesture

to activate any and all computer functions that might be incorporated in a pen-based computer system" (Br13). It is argued that Sklarew discloses softkeys which can be used to enter computer commands with a non-gesture action and, "[t]hus, the mere existence of references showing pen-based computers which can recognize gestures, does not automatically suggest to one of skill in the art that implementing a text domain conversion on such computers would necessarily involve a pen-based gesture" (Br13). There are a limited number of ways for a user to enter data and commands in a pen-based system, e.g., a keyboard, softkeys, or gestures. One of ordinary skill in the art of designing interfaces for pen-based computers would have considered any of these known methods, e.g., a gesture, to have been obvious. The existence of a limited choice of options does not make the selection of a particular option nonobvious.

Appellant argues that "Sklarew's handwriting recognition process involves text from only a single text domain" (Br15) and that "handwritten text and computer text from the same character set do not constitute separate source and destination text domains within the meaning of the claimed

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invention" (Br16) because a "text domain" is a group of textual elements associated with a single language. We disagree with this narrow interpretation of what constitutes a "text domain" for the reasons discussed at the beginning of this subsection.

Appellant argues that there is no motivation to combine the respective teachings because Sklarew can access only a single text domain at one time (Br14). As discussed, we agree that the Examiner has failed to establish motivation to combine by a showing of facts in the references. However, we disagree with the argument that Sklarew involves only a single text domain for the reasons discussed at the beginning of this subsection.

For the reasons discussed above, Appellant has failed to rebut the <u>prima facie</u> case of obviousness with respect to claim 1. The rejection of claims 1-6 is sustained.

Claim 7

Appellant argues that neither Sklarew nor Kato discloses identifying multiple potential text conversion results and then ranking them (Br16-17). The Examiner finds that searching for a minimum difference for recognition of the font

symbol or command, as described at column 17, lines 51-63, meets claim 7 (EA8). Appellant argues that Sklarew merely searches for the "best match" and does not perform any ranking before selecting the top ranked candidate (Br17). We agree with Appellant. There is no suggestion of any "ranking" of candidate text strings in Sklarew. A "best match" comparison merely replaces the old best match with a new best match and does not retain the previous best matches in any sort of rank order. Therefore, the rejection of claim 7 is reversed.

Issue C: Claims 8-20

Claims 11-15, 19, and 20

As a matter of claim interpretation, claim 11 does not require that the recognizer produce a computer character from the handwritten character, which computer character is then converted to a second text domain; compare claim 11 to claim 24. Therefore, we interpret claim 11 to cover converting handwritten characters ("displayed characters of the first text domain," as claimed) to computer generated font symbols ("characters of the second text domain," as claimed) as disclosed in Sklarew. The software in Sklarew which takes the recognized character or command and converts it into the

computer text font symbol is a "text extension system." We

conclude that a prima facie case of obviousness is established

with respect to claim 11 for the reasons stated with respect

to claim 1 and because Capps additionally discloses a

correction gesture (col. 7, line 58, to col. 8, line 4), which

provides further evidence that it would have been obvious to

use gestures to initiate different functions in a pen-based

computer interface.

Appellant argues that "[t]he text extension system

includes 'extensions' (which were defined above) for

converting between multiple text domains" (Br20) and that

"Claim 12 explicitly requires that the 'text extension

comprises one or more text extensions . . .'" (Br20).

Appellant argues that "the cited art does not disclose or

suggest the use or advantages of a text extension system with

multiple text domain capabilities" (Br20) and that "[n]either

the Sklarew, Capps et al., nor Kato et al. patents disclose or

suggest a system which is capable of multiple conversions

between multiple text domains" (Br20-21). Claim 11 requires

only "a text extension system" and the "one or more" language

of claim 12 is satisfied by a single text extension.

Therefore, the arguments about the advantages of multiple text

domain conversions are not commensurate in scope with the

claims. The claimed text extension system is for "converting

displayed characters of the first text domain to characters of

the second text domain," which function is performed by

software in Sklarew, and does not require any automatic

determination of source and destination domains, nor does it

imply that the advantages argued by Appellant (Br20) are

inherent.

Appellant has failed to rebut the <u>prima facie</u> case. The

rejection of claim 11 is sustained. Dependent claims 12-15,

19, and 20 have not been separately argued and fall with

claim 11. Therefore, the rejection of claims 11-15, 19 and 20

is sustained.

Claims 8, 9, and 16-18

Claims 8 and 9 further limit claim 7. Although the

rejection of claim 7 has been reversed, an additional

reference to Capps is applied to claims 8 and 9.

Capps discloses a user interface for a pen-based computer

for correcting handwriting recognition results. The Capps

interface ranks a list of candidate words (text strings) and

allows the user to display and select from that list. The top

ranked candidate word can be designated to replace the

selected text. Thus, Capps discloses the ranking and

designation limitations of claim 7. Capps allows the selected

text string on the screen to be corrected using a correction

gesture and a menu of candidate text strings as recited in

claims 8 and 9. It would have been obvious to apply the

correction technique of Capps to the pen-based computer of

Sklarew because both deal with handwriting recognition in a

pen-based computer. The combination of Sklarew, Kato, and

Capps establishes a prima facie case of obviousness with

respect to claims 8 and 9 and 16-18.

Appellant argues that in Capps "both the handwritten text

and the listed candidates for recognition are from the same

text domain" (Br18). We conclude that handwriting symbols and

computer font symbols are broadly from different "text

domains," as discussed in connection with claim 1. Hence, we

conclude that Appellant has failed to rebut the prima facie

case and the rejection of claims 8, 9, and 16-18 is

sustained.[4]

Claim 10

The separate patentability of claim 10 has not been

argued. Thus, claim 10 falls with claim 1. We note, however,

that Capps teaches initiating a correction function using a

conversion gesture (a double tap of the stylus on the screen)

within a bounding box of the word object (col. 7,

lines 62-65)). The rejection of claim 10 is sustained.

Issue D: Claims 21-23

The Examiner has not established a prima facie case of

obviousness with respect to claim 21. As discussed in

connection with claim 1, we find no motivation in the record

established by the Examiner to combine the automatic symbology

conversion system of Kato with a pen-based handwriting

recognition device as taught in Sklarew. Capps discloses a

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[4] Since claim 7 has not been rejected over the
combination including Capps, we have the somewhat unusual
circumstance of the rejection of dependent claims 8 and 9
being affirmed (with an additional reference) and the
rejection of the parent claim 7 being reversed.

user interface for a pen-based computer similar to Sklarew for

correcting handwriting recognition results and we likewise

find no motivation in the record to combine Capps and with the

automatic conversion system in Kato. As discussed in

connection with the rejection of claim 1, handwritten

characters can broadly be considered to be from "one text

domain" (a "source text domain") and the font symbols can be

considered to be from "another text domain" (a "destination

text domain"). However, the Examiner does not rely on this

interpretation; the Examiner relies on the recognized word

object (the word after it is recognized from the handwritten

ink object) being in the source text domain. The rejection is

based on the conclusion that it would have been obvious to

convert between different symbology text domains as taught in

Kato instead of correcting words in a single text domain as

taught in Capps. We do not find motivation for this

modification in the automatic symbology conversion in Kato or

in the correction method in Capps. The motivation derives

from hindsight based on Appellant's disclosure. The rejection

of claims 21-23 is reversed.

Issue E: Claims 24-37 [sic, 24-27]

Appellant argues that "it appears that the Horodeck reference adds nothing of relevance beyond that described in the Kato et al. reference" (Br23). We disagree. Kato is directed to automatic symbology conversion used in full text searching and has no teaching of a user manually designating text to be converted from one text domain to another. As a consequence, we found no motivation for one of ordinary skill in the art to adapt this automatic conversion in a search method to a pen-based computer such as Sklarew. Horodeck, however, discloses a computer with a keyboard for performing text domain conversions wherein delimiters are inserted by the operator to designate portions of text to be converted from one text domain to another. The computer responds to the pair of delimiting signals to convert from kana to kanji (e.g., col. 15, lines 33-45). Horodeck also discloses that a list (i.e., menu) of numbered choices is displayed in the assembly portion of the cathode ray tube when the kana/kanji conversion results in ambiguities (e.g., col. 15 under heading "MANUAL RESOLUTION OF AMBIGUITIES"). Therefore, Horodeck discloses manually selecting text to be converted, determining the appropriate destination text domain, displaying a list of

candidate text strings for ambiguous conversions, and

selecting from the list.

Claims 24-26

Horodeck discloses conversion of text domains, but does

not disclose a pen-based computer system with handwritten

character input and conversion in response to a conversion

gesture. It is admitted that it was known to use Japanese

handwriting recognition to enter characters (specification,

page 3). Sklarew discloses that "the keyboardless computer

can function in any application or environment in which

handwritten input translated into computer text is useful or

necessary" (col. 11, lines 1-4) and it has particular utility

for word processing and communication in "languages which are

not made up of a small or limited set of alphanumeric

characters (e.g., Japanese, Korean, and Chinese" (col. 11,

lines 10-13). In our opinion, one skilled in the art of

converting text from one text domain to another, such art

being represented by Horodeck, would have been motivated to

use a pen-based computer character recognition input, such as

Sklarew, because it is suited for handwritten input of

complicated characters. One of ordinary skill in the art

would have been motivated to implement the conversion features

of Horodeck using known techniques of pen-based interfaces as

taught by Sklarew. As noted by the Examiner (EA17), Sklarew

discloses that user defined delimiters can be used to identify

portions of text to be moved (col. 10, lines 38-42), which

reasonably would have suggested to one skilled in the art that

the keyboard-entered delimiters in Horodeck could be replaced

by stylus-entered delimiters to identify text to be converted.

Sklarew discloses using a softkey or a gesture to initiate a

function, which would have suggested to one skilled in the art

that a gesture could be used to initiate other functions, such

as conversion. In our opinion, the combination of Sklarew and

Horodeck establishes a <u>prima facie</u> case of obviousness.

Appellant argues that the rejection should be overturned

for the reasons stated in Argument Section B (Br22). We refer

to our discussion of the arguments with respect to claim 1.

In addition, we note that Horodeck discloses the same kind of

text domain conversion as disclosed by Appellant.

Appellant also argues that step (f) of claim 24 requires

that "the source and destination text domains specify words in

different alphabets." Horodeck expressly discloses conversion
of words in different symbologies.

Appellant has failed to rebut the prima facie case of
obviousness with respect to claim 24. The rejection of
claims 24-26 is sustained.

Claim 27

Claim 27 is similar to claim 7. Horodeck discloses that
a list of numbered choices is displayed in the assembly
portion of the cathode ray tube when the kana/kanji conversion
results in ambiguities (e.g., col. 15 under heading "MANUAL
RESOLUTION OF AMBIGUITIES"). This list is broadly considered
a "ranking" of the candidate text strings because claim 27
does not define what criteria are used to place the text
strings in any sort of order. The combination of Sklarew and
Horodeck establishes a prima facie case of obviousness.

Appellant relies on the arguments made with respect to
claim 7. Appellant argues that "[n]one of these patents [to
Sklarew, Kato, or Horodeck] describes identifying multiple
potential text conversion results and then ranking them"
(Br24). We disagree because of the teaching in Horodeck,
which has not been addressed by Appellant.

Appellant has failed to rebut the <u>prima facie</u> case of obviousness with respect to claim 27. The rejection of claim 27 is sustained.

Issue F: Claims 28-37

Claims 28 and 29

Claims 28 and 29 are similar to claims 8 and 9. We refer to the discussion of claims 8 and 9. Both Horodeck and Capps disclose displaying a list of candidate text strings. It would have been obvious to replace the selected text with a candidate text string using a correction gesture in view of the teachings of Capps. Thus, a <u>prima facie</u> case of obviousness is established with respect to claims 28 and 29.

We disagree with Appellant's argument that Horodeck does not suggest ranking (Br24). Appellant has failed to rebut the <u>prima facie</u> case of obviousness with respect to claims 28 and 29. The rejection of claims 28 and 29 is sustained.

Claim 30

Claim 30 is similar to claim 10. The separate patentability of claim 30 has not been argued; thus, claim 30 falls with claim 24. As noted with respect to claim 10, Capps teaches initiating a correction function using a conversion

gesture (a double tap of the stylus on the screen) within a

bounding box of the word object (col. 7, lines 62-65)). The

rejection of claim 30 is sustained.

Claims 31-37

Claim 31 is identical to claim 11 except that it adds the

phrase "wherein the first and second text domains specify

words in different alphabets." Horodeck discloses conversion

of text domains which specify words in different alphabets,

but does not disclose a stylus-based computer system with

handwritten character input and conversion in response to a

conversion gesture. In our opinion, it would have been

obvious to recognize handwritten characters and convert them

from one text domain to a different text domain in the

pen-based computer of Sklarew for the reasons stated in

connection with claim 24. The "text extension system for

converting displayed characters of the first text domain to

characters of the second text domain" is met by the conversion

software in Horodeck. In our opinion, the combination

establishes a prima facie case of obviousness.

Appellant argues that "Horodeck merely teach[es]

conversions between one set of text domains" (Br23) and that

the references do not "disclose or suggest a system which is

capable of multiple conversions between multiple text domains"

(Br24). Claim 31 does not require more than a first and

second text domain. Thus, the arguments are not commensurate

in scope with the claim. The discussion of the "text

extension system" in connection with claim 11 is also relevant

here.

Appellant has failed to rebut the <u>prima facie</u> case of

obviousness with respect to claim 31. The rejection of

claims 31-37 is sustained.

<div align="center">CONCLUSION</div>

The rejections of claims 1-6, 8-20, 24-37 are sustained.

The rejections of claims 7 and 21-23 are reversed.

No time period for taking any subsequent action in

connection with this appeal may be extended under 37 CFR

§ 1.136(a).

<div align="center"><u>AFFIRMED-IN-PART</u></div>

KENNETH W. HAIRSTON   )
Administrative   Patent Judge   )
)
)
)
) BOARD OF PATENT
LEE E. BARRETT   )   APPEALS
Administrative Patent Judge   )   AND
)   INTERFERENCES
)
)
)
JOSEPH F. RUGGIERO   )
Administrative Patent Judge   )

Appeal No. 97-0642
Application 08/242,318

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